

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of)	
Sanjay GHEMAWAT et al.)	ATTN: M/S AF
Application No.: 10/608,139)	Group Art Unit: 2163
Filed: June 30, 2003)	Examiner: H. Thai
For: SYSTEMS AND METHODS FOR)	
REPLICATING DATA)	

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PRE-APPEAL BRIEF REQUEST FOR REVIEW

Applicants hereby request that a panel of Examiners formally review the legal and factual basis of the rejection in the above-identified application prior to the filing of an Appeal Brief. Applicants assert that the outstanding rejections are clearly improper and based upon errors in fact.

Claims 1-27 are pending in this application, of which claims 9-18 have been withdrawn from consideration by the Examiner. Claims 1-8 and 19-27 stand rejected under 35 U.S.C. § 101 as allegedly lacking patentable utility. Claims 1-8 stand rejected under 35 U.S.C. § 102(b) as allegedly anticipated by Jindal et al. (U.S. Patent No. 6,324,580). Claims 19-27 stand rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over Jindal et al. and Narendran et al. (U.S. Patent No. 6,070,191). Applicants submit that the Examiner's rejections are incomplete and based on inconsistencies.

EXAMINER DID NOT ESTABLISH PRIMA FACIE CASE UNDER 35 U.S.C. § 101

In paragraph 5 of the final Office Action, the Examiner rejected claims 1-8 and 19-27 under 35 U.S.C. § 101 as allegedly lacking patentable utility. The Examiner alleged that claims 1, 8, 19, 26, and 27 merely identify or define "a data process in which to be manipulated without giving rise to a concrete, useful and tangible result" (final Office Action, page 3). Applicants traverse the rejection and submit that the Examiner's allegation falls short of establishing a prima facie case to deny patentability under 35 U.S.C. § 101.

According to the Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility, the burden is on the Examiner to set forth a prima facie case of unpatentability. Therefore, if the Examiner determines that it is more likely than not that the claimed subject matter falls outside all of the statutory categories, the Examiner must provide an explanation (Id. at §IV. B.). In this

case, the Examiner's allegation that the claims identify or define a data process falls short of establishing that the claims fall outside all of the statutory categories, because a "process" is one of the statutory categories.

The Interim Guidelines indicate that if a claimed invention falls outside all of the statutory categories, the claims might still satisfy the requirements of 35 U.S.C. § 101 if the claims, as a whole, are directed to a particular application of an abstract idea, natural phenomenon, or law of nature, rather than to the abstract idea, natural phenomenon, or law of nature itself (Id. at § IV. C.). The Examiner has not even alleged that one or more of Applicants' claims are directed to an abstract idea, natural phenomenon, or a law of nature. Therefore, the Examiner's allegation that the claims identify or define a data process falls short of establishing that the claims are directed to an abstract idea, a natural phenomenon, or a law of nature.

The Examiner further alleged that Applicants' claims do not "do an action statement" because Applicants' claim language of "identifying servers and placing the replicas of the data at the identified servers does not render a result" (final Office Action, page 2). Applicants submit that the Examiner's statement lacks merit. Claim 1 recites "placing the replicas of the data at the identified servers." The result clearly is that the replicas of the data are placed at the identified servers. Claim 7 recites "means for storing the replicas of the chunks at the selected servers." The result clearly is that the replicas are stored at the selected servers. Claim 8 recites a master that "place[s] the replicas of the chunk at the identified one or more servers." The result is clearly that the replicas are placed at the identified one or more servers. Claim 19 recites "moving the one or more replicas to the selected one or more servers." The result is clearly that the one or more replicas are moved to the selected one or more servers. Claim 26 recites "means for redistributing the one or more replicas to the identified one or more servers." The result is clearly that the one or more replicas are redistributed to the identified one or more servers. Claim 27 recites a master that "move[s] the selected one or more replicas to the identified one or more servers." The result is clearly that the one or more replicas are moved to the identified one or more servers. Accordingly, the Examiner's statement that the claims lack a result is without merit.

For at least these reasons, Applicants submit that the Examiner has not established a prima facie case to deny patentability under 35 U.S.C. § 101. Because of the deficiencies in the Examiner's rejection under 35 U.S.C. § 101, the rejection must be withdrawn.

EXAMINER'S REJECTION UNDER 35 U.S.C. § 102(b) IS INCOMPLETE

In paragraph 6 of the final Office Action, the Examiner rejected claims 1-8 under 35 U.S.C. § 102(b) as allegedly anticipated by Jindal et al. Applicants traverse the rejection and submit that the Examiner's rejection is *incomplete*.

For example, Jindal et al. does not disclose or suggest identifying ones of the servers to store a replica of the data based on at least one of utilization of the servers, prior data distribution involving the servers, or failure correlation properties associated with the servers, as recited in claim 1. The Examiner alleged that Jindal et al. discloses these features and cited the Abstract, the Summary, column 4, lines 40-67, and column 5, lines 57-60, of Jindal et al. for support (final Office Action, page 4). Applicants submit that none of these sections supports the Examiner's allegation.

In these sections, Jindal et al. discloses a method for load balancing requests for a replicated service or application among a plurality of servers operating instances of the replicated service or application, and choosing a preferred server from the plurality of servers to receive a request. Nowhere in these sections, or elsewhere, does Jindal et al. disclose or remotely suggest identifying ones of the servers to store a replica of the data based on at least one of utilization of the servers, prior data distribution involving the servers, or failure correlation properties associated with the servers, as required by claim 1.

Jindal et al. also does not disclose or suggest placing the replicas of the data at the identified servers, as further recited in claim 1. The Examiner alleged that Jindal et al. discloses this feature and cited column 4, lines 40-67, of Jindal et al. for support (Office Action, page 3). Applicants submit that this section does not support the Examiner's allegation.

At column 4, lines 40-67, Jindal et al. discloses that information is collected from the servers to identify the preferred server to receive a client request. Nowhere in this section, or elsewhere, does Jindal et al. disclose or remotely suggest placing the replicas of the data at the identified servers, as required by claim 1.

For at least these reasons and the reasons given at pages 5-9 of Applicants' after final request for reconsideration, filed December 29, 2006, Applicants submit that claim 1 is not anticipated by Jindal et al. Claims 2-6 depend from claim 1 and are, therefore, not anticipated by Jindal et al. for at least the reasons given with regard to claim 1. Independent claims 7 and 8 recite features similar to (yet possibly different in scope from) features recited in claim 1. Claims 7 and 8 are, therefore, not anticipated by Jindal et al. for at least reasons similar to reasons given with regard to claim 1. Because of the deficiencies in the Examiner's rejection under 35 U.S.C. § 102, the rejection must be withdrawn.

EXAMINER'S REJECTION UNDER 35 U.S.C. § 103(a) IS BASED ON INCONSISTENCIES

In paragraph 7 of the final Office Action, the Examiner rejected claims 19-27 under 35 U.S.C. § 103(a) as allegedly unpatentable over Jindal et al. in view of Narendran et al. Applicants submit that the Examiner's rejection is based on inconsistencies and inaccuracies.

For example, Jindal et al. and Narendran et al., whether taken alone or in any reasonable combination, do not disclose or suggest as recited in claim 19. The Examiner alleged that Jindal et al.

discloses this feature and cited column 6, lines 31-45 and 56-64, of Jindal et al. for support (final Office Action, page 6). Applicants disagree.

At column 6, lines 31-45, Jindal et al. discloses choosing a least-loaded server or a closest server. Jindal et al. explicitly discloses that this server is selected to receive a client request (col. 2, lines 36-43). Nowhere in this section, or elsewhere, does Jindal et al. disclose or remotely suggest determining whether to redistribute replicas, as required by claim 19.

At column 6, lines 56-64, Jindal et al. discloses a status object for each replicated service or application to be monitored. Nowhere in this section, or elsewhere, does Jindal et al. disclose or remotely suggest determining whether to redistribute replicas, as required by claim 19.

The Examiner admitted that Jindal et al. does not disclose redistributing replicas (final Office Action, page 6). Given this, Applicants cannot comprehend how the Examiner can allege that Jindal et al. discloses determining whether to redistribute replicas, as required by claim 19. Thus, the Examiner's rejection is *based on inconsistencies*.

Nevertheless, the Examiner alleged that Narendran et al. discloses data distribution techniques for load-balanced fault-tolerant web access including redistributing replicated data from a failed server to achieve rebalance and cited column 12, lines 12-38, of Narendran et al. for support (final Office Action, pages 6-7). Applicants submit that the disclosure of Narendran et al. does not support the Examiner's allegation and, in fact, *teaches away* from the features recited in claim 19.

At column 12, lines 12-38, Narendran et al. discloses rebalancing server loads by adjusting the redirection probabilities used by the redirection server when a server fails, changes occur in the access probabilities of the document, or changes in the capacity of the document servers occurs. Nowhere in this section, or elsewhere, does Narendran et al. disclose or remotely suggest determining whether to redistribute any of the replicas, as required by claim 19. Instead, Narendran et al. discloses "the rebalancing should be accomplished without redistributing documents among the servers, since this would generally involve overhead in moving the documents between servers and may affect the availability of the system" (emphasis added) (col. 12, lines 23-26). Accordingly, Narendran et al. specifically teaches away from redistributing documents (which the Examiner apparently equates to the replicas recited in claim 19).

Narendran et al. also discloses that in situations in which the documents on the failed server are not replicated, the algorithm could be used to redistribute the documents from the failed server to achieve rebalance with a minimal amount of document movement (col. 12, lines 33-38). In this situation, however, the documents cannot reasonably be interpreted as replicas since Narendran et al. specifically discloses that the documents are not replicated (col. 12, lines 33-35).

For at least these reasons and the reasons given at pages 15-19 of Applicants' after final request for reconsideration, filed December 29, 2006, Applicants submit that claim 19 is patentable over Jindal et al. and Narendran et al., whether taken alone or in any reasonable combination. Claims 20-25 depend from claim 19 and are, therefore, patentable over Jindal et al. and Narendran et al. for at least the reasons given with regard to claim 19. Independent claims 26 and 27 recite features similar to (but possibly different in scope from) features recited in claim 19. Claims 26 and 27 are, therefore, patentable over Jindal et al. and Narendran et al., whether taken alone or in any reasonable combination, for at least reasons similar to reasons given with regard to claim 19. Because of the deficiencies in the Examiner's rejection under 35 U.S.C. § 103, the rejection must be withdrawn.

In view of the foregoing remarks, Applicants submit that clear deficiencies exist with respect to the rejections of claims 1-8 and 19-27. Therefore, Applicants respectfully request withdrawal of the outstanding rejections and the timely allowance of the pending claims.

To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 50-1070 and please credit any excess fees to such deposit account.

Respectfully submitted,
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